

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

oplicant's or agent's file reference	ACTION (Form PC1/ISA/2:	of Transmittal of International Search Report (20) as well as, where applicable, item 5 below. [(Earliest) Priority Date (day/month/year)
NT1013/MAJR	International filing date (day/month/year)	
ternational application No.		30/09/1999
CT/ZA 00/00176	21/09/2000	1
pplicant		
BILLITON INTELLECTUAL PRO		
This International Search Report has bee according to Article 18. A copy is being to	en prepared by this International Searching Au transmitted to the International Bureau.	ithority and is transmitted to the applicant
		ils report.
Basis of the report a. With regard to the language, the	ne International search was carried out on the b unless otherwise indicated under this item.	pasis of the international application in the
language in which it was in a	was carried out on the basis of a translation of	of the international application furnished to this
Authority (Hule 23.1(b)	y.	e International application, the international search
 With regard to any nucleotide was carried out on the basis of 	and/or amino acid sequence discloses in an the sequence listing :	
was carried out on the basis a	- tippel application in written form.	
Glad together with the	international application in computer recursive	tom.
E	ty to this Authority in written lotti.	
turnished subsequent	ty to this Authority in computer readble form.	a
E	cubeequently furnished written sequence in a	ng does not go beyond the disclosure in the
international applicati	information recorded in computer readable fo	orm is identical to the written sequence listing has been
furnished		
2. Certain claims were	e found unsearchable (See Box I).	
3. Unity of invention is	s lacking (see Box II).	
4. With regard to the title,		
TTT	as submitted by the applicant.	
the text has been et	stablished by this Authority to read as follows:	
With regard to the abstract,		
the text is approved the text has been e within one month fr		Authority as it appears in Box III. The applicant may, arch report, submit comments to this Authority.
6. The figure of the drawings to b	be published with the abstract is Figure No.	None of the figures.
[V] as suggested by the	he applicant.	_
H because the applic	cant failed to suggest a figure.	
hooping this floure	e better characterizes the invention.	



From the INTERNATIONAL SEARCHING AUTHORITY

To: McCALLUM RADEMEYER & FREIMOND P.O. Box 1130

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

7 Maclyn House, Bordeaux 2125 Randburg SOUTH AFRICA	(PCT Rule 44.1)
*	Date of mailing (day/month/year) 06/02/2001
Applicant's or agent's file reference INT1013/MAJR International application No. PCT/ZA 00/00176	FOR FURTHER ACTION See paragraphs 1 and 4 below International filing date (day/month/year) 21/09/2000
Applicant BILLITON INTELLECTUAL PROPERTY B.V. et	al.
Filing of amendments and statement under Arrucie is a The applicant is entitled, if he so wishes, to amend the cit when? The time limit for filing such amendments is not international Search Report; however, for more Where? Directly to the International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Fascimile No (41–22) 740,11	mally 2 months from the date of transmittal of the details, see the notes on the accompanying sheet. 4.35
The applicant is hereby notified that no International Search Article 17(2)(a) to that effect is transmitted herewith.	earch Report will be established and that the $$ declaration under $$
the protest together with the decision thereon has applicant's request to forward the texts of both the	ditional fee(s) under Rule 40.2, the applicant is notified that: been transmitted to the International Bureau together with the e protest and the decision thereon to the designated Offices.
	e applicant will be notified as soon as a decision is made.
4. Further action(s): The applicant is reminded of the follow	ving:

Shortly after 16 months from the priority date, the international application will be published by the International Bureau.

If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the international Eureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations to time-mational publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

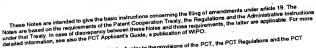
Name and mailing address of the International Searching Authority

European Patent Office, P.B. 5818 Patentlaan 2

European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Piljswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Authorized officer

Maria Van der Hoeven





In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the The approximate, after naving received the memberons search report, one opportunity to amend the claims of the international application, it should however be emphasized that, since all parts of the international application (claims, international application, it should however be emphasized that, since all parts of the international application (claims, international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually description and drawings) may be amenoso during the international preliminary examination procedure, there is usuary no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published no need to the amendments of the claims under Article 19 except where, e.g. the approach wants the later to be published to the purposes of provisional protection or has another reason for amending the claims before international publication. for the purposes of provisional prosection or has another related for amending the claims before in Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before During the international phase, the claims may also be amended for authors amended unfor returned as secretarities the international Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority Within 2 months from the date of transmittal of the international search report of 15 morans from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered with a windower time limit expires later, it should be noted, however, that the amendments will be considered as having been received on time if they are received by the international Bureau after the expiration of the as having been received on time if they are received by the international bureau after the expiration of a applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the international Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or one or more of the claims as filed. amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is All the claims appearing on a replacement sheet must be numbered in Ayabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be the tener will not be published wan the insernational application and the american diameter. A provide for confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the International application is French, the letter must be in French.

Notes to Form PCT/ISA/220 (first sheet) (January 1994)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- [Where originally there were 48 claims and after amendment of some claims there are 51]: [Where originally there were 48 claims and after amendment of some claims treere are 3-1]. *Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]:
- Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding
 - new claims]. "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or Claims 1 to 0 and 19 undestinated; dates / to 13 cardenes; town claims 15, to and 17 dates. "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- [Where various kinds of amendments are made]:

 *Claims 1-10 unchanged: claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claims 15 and 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added.

The amendments may be accompanied by a statement explaining the amendments and indicating any impact "Statement under article 19(1)" (Rule 46.4) the amendments may be accompanied by a statement explaining the amendments and ndicating any in that such amendments might have on the description and the drawings (which cannot be amended under that such amendments might have on the description and the drawings (which cannot be amended under that such amendments might have on the description and the drawings (which cannot be amended under that such amendments may be accompanied by a statement explaining to the amendments are also as the such as the such amendments are also as the such as the such

The statement will be published with the international application and the amended claims.

it must be in the language in which the international appplication is to be published.

it must be brief, not exceeding 500 words if in English or if translated into English

It should not be confused with and does not replace the letter indicating the differences between the claims it should not be confused with and does not replace the tester indicating the citresences between the claims as filled and as amended. It must be filled on a separate sheet and must be identified as such by a heading, preterably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Beference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination It as are time on ming any amendments under entures 13, a demand for international preliminary examination that already been submitted, the applicant must preferably, at the same lime of filing the amendments with the international Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the drawns as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PATENT COUPERATION INEATT

INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY From the

To:

McCALLUM RADEMEYER & FREIMOND

PO Box 1130 Randburg 2125 AFRIQUE DU SUD 182-1

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing

13.12.2001 (day/month/year)

Applicant's or agent's file reference

INT.1013 International filing date (day/month/year) International application No. 21/09/2000 PCT/ZA00/00176

IMPORTANT NOTIFICATION Priority date (day/month/year) 30/09/1999

BILLITON INTELLECTUAL PROPERTY B.V. et al.

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

The applicant must enter the national phase before each elected Office by performing certain acts (filing 4. REMINDER the approach that the hard series within 30 months from the priority date (or later in some Offices) (Article translations and paying national fees) within 30 months from the priority date (or later in some Offices) 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

European Patent Office

D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465

Authorized officer

Eich, M

Tel.+49 89 2399-7578





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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference	FOR FURTHER ACTION	See Notifica Preliminary	ation of Transmittal of International Examination Report (Form PCT/IPEA/416)
NT.1013	International filing date (day/month	h/year)	Priority date (day/month/year)
International application No.	21/09/2000		30/09/1999
	Z 1709/2000		
PCT/ZA00/00176 International Patent Classification (IPC) or n C22B30/04	ational diagonite.		
Applicant BILLITON INTELLECTUAL PROP 1. This international preliminary exa and is transmitted to the applicar	roport has been prepar	ed by this In	ternational Preliminary Examining Authority
and is transmitted to the			
(see Rule 70.16 and Section These annexes consist of a tolu	inied by ANNEXES, i.e. sheets o basis for this report and/or shee in 607 of the Administrative Instr	the descrip	tion, claims and/or drawings which have rectifications made before this Authority r the PCT).
57 Darie of the repor	t		
Basis of the report	nt of opinion with regard to novel	tv. inventive	step and industrial applicability
III	nt of opinion with regard to nove		industrial applicability;
IV Lack of unity of in	Wention	ard to novelty	r, inventive step or industrial applicability;
V ⊠ Reasoned staten citations and exp	nent under Article 33(2) managen planations suporting such statem	ent	
d-aumo	nte cited		
		tion	
VIII Certain observa	tions on the international applica		
		Date of compl	etion of this report
Date of submission of the demand		13.12.2001	
18/04/2001	- stional	Authorized of	fficer
Name and mailing address of the in preliminary examining authority: European Patent Office		Boureau,	J-L

Telephone No. +49 89 2399 8454

Tel. +49 89 2399 - 0 Tx: 523656 epmu d

D-80298 Munich

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/ZA00/00176

1. Writh regard to the elements of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as 'originally filed' neceiving Office in response to an invitation under Article 14 are referred to in this report as 'originally filed' neceiving Office in response to an invitation under Article 14 are referred to in this report as 'originally filed' neceiving office in the second of the s	_		
Claims, No.: 1-7 with telefax of 05/12/2001 Drawings, sheets: 1/5-5/5 as originally filed 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language: , which is: the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)) the language of a translation furnished for the purposes of international preliminary examination (under Rule 48.3(b)). the language of a translation furnished for the purposes of international preliminary examination (under 55.2 and/or 55.3). 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. the statement that the subsequently furnished written sequence listing does not go beyond the disclement of the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.	l. 1.	and are not annexed to Description, pages:	this report since triey do not summit this report since tries are the summit this report since the summit the summit this report since the summit this report since the summit the s
Drawings, sheets: 1/5-5/5 as originally filed 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language: , which is: the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)) the language of a translation furnished for the purposes of international preliminary examination (under Rule 48.3(b)). 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. turnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the discleration in computer readable form is identical to the written sequence listing has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.		1-14	as originally filed
2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language: , which is: the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)) the language of a translation furnished for the purposes of international preliminary examination (under Rule 48.3(b)). 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the discleration in computer readable form is identical to the written sequence listing has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.			with telefax of 05/12/2001
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the description,		 The amendment the description 	

☐ the claims,

Nos.:

INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

International application No. PCT/ZA00/00176

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	the drawings,	sheets: established as if (some of) the amendments had not been made, since they have been used the disclosure as filed (Rule 70.2(c)):
5. C	This report has beer considered to go be	n established as if (some 0) the almostochy yond the disclosure as filed (Rule 70.2(c)): the containing such amendments must be referred to under item 1 and annexed to this
	(Any replacement s report.)	neet containing such account
		'/ - reaccap'

- 6. Additional observations, if necessary:
- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Claims 1-7 Yes: Novelty (N) Claims

No:

Claims 1-7 Yes: Inventive step (IS) Claims No:

Claims 1-7 Industrial applicability (IA) Yes:

Claims No:

- 2. Citations and explanations see separate sheet
- Certain documents cited
- Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

see separate sheet

EXAMINATION REPORT - SEPARATE SHEET

Reference is made to the following documents:

D1: US-A-5 820 966, cited in the application

D2: PATENT ABSTRACTS OF JAPAN vol. 009, no. 017 (C-262) &

JP 59 164639 A

D3: EP-A-1 059 361

2. Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2.1 Claim 1

Document D1 discloses a continuous method of disposing arsenic from acidic solutions containing copper and iron (column 4, Table 2), e.g. resulting from the treatment of smelter flue gases. The acidic solution is treated in a series of stirred tanks at a temperature of 75 °C (Table 1) with air addition.

In a first oxidation tank (22), As, Fe are completely oxidized by air and sulphur dioxide.

In a second conditioning tank (32), the solution is seeded with a precipitate including ferric arsenate which is obtained by neutralization with lime and recycled from a final tank (52,62).

In a third and fourth tanks (42,52), the solution is neutralized with lime to a pH of at least 7 for removing divalent non-ferrous metals and forming a stable ferric arsenate precipitate.

The method in accordance with claim 1 merely differs therefrom in that (i) in each of the tanks, a portion of ferrous iron is oxidized to ferric iron and ferric arsenate

INTERNATIONAL PRELIMINARY

International application No. PCT/ZA00/00176

EXAMINATION REPORT - SEPARATE SHEET

is selectively precipitated, (ii) in that a portion of selectively precipated ferric arsenate is recycled from the final to the first tank and (iii) in that the pH of the solution is maintained in the second tank at about 1.5.

Thus, the subject-matter of claim 1 is novel (Article 33(2) PCT). It is also inventive (Article 33(3) PCT) because the use of the above novel features in order to improve arsenic removal and to minimize copper precipitation is not rendered obvious by the prior art, e.g. by document D2.

2.2 Claims 2 to 7 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Re Item VI 3. Certain documents cited

Document D3 claims the priority date of 06.06.1999. It has been filed on 30.05.2000 and published on 13.12.2000. Although its content is relevant, it does not belong to the prior art for the purpose of Article 33(2) and (3) PCT.

CLAIMS

- A method of which includes the steps of: 1.
 - (a) introducing an acidic solution containing arsenic(V), copper, erric iron and ferrous iron into a first tank of a series of continuously stirred tank reactors and, in the first tank.
 - adding air to the solution: (b)
 - heating the solution to an elevated temperature; (c)
 - recycling a portion of selectively precipitated f_{erric}^{j} arsenate compounds to the said (d) first tank; and
 - seeding the solution with ferric arsenate compounds. (e)
- A method according to claim 1 wherein the seeding occurs to provide seeds for 2. enhanced crystalline formation.
- A method according to claim 1 or 2 wherein the molar ratio of iron to arsenic of the 3. solution is at least 1.
- A method according to claim 1, 2 $\stackrel{'}{\text{pr}}$ 3 wherein air is added, in step (b), to oxidise the 4. ferrous iron to ferric iron.
- A method according to any one of steps 1 to 4 wherein the solution is heated, in step (c), 5. to increase the rate of ferric arsenate precipitation and to minimise copper coprecipitation.
- A method according to any one claims 1 to 5 wherein the said elevated temperature is Company Company 6. above 60°C and below 100°C.

- A method according to any one of claims 1 to 6 which is conducted at atmospheric WO 01/23628 7. pressure.
- A method according to any one of claims 1 to 7 which includes the step of: 8.
 - transferring solution from the said first tank to a second tank in the series of continuously stirred tank reactors.
- A method according to claim 8 which includes the steps, in the second tank, of 9.
 - adding air to the solution: (g)
 - heating the solution to an elevated temperature; and (h)
 - selectively precipitating ferric arsenate compounds from the seeded aqueous (i) solution with a first calcium-containing neutralising agent.
- 10. A method according to claim 9 wherein the molar ratio of iron to arsenic of the seeded solution in the second tank is at least 1.
- 11. A method according to claim 9 or 10 wherein air is added, in step (g), to oxidise ferrous iron of the seeded solution to ferric iron.
- A method according to claim 9, 10 or 11 wherein the solution is heated, in step (h), to 12. increase the rate of ferric arsenate precipitation and to minimise copper co-precipitation.
- 13. A method according to any $\!\!\!\!/$ one of claims 9 to 12 wherein the elevated temperature in step (h) is above 60°C and below 100 °C.
 - A method according to any one of claims 9 to 13 wherein the precipitation of ferric arsenate compounds in step (i) is conducted at atmospheric pressure and at a pH of at least about 1,5. 16

WO 01/23628

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- A method according to any one of claims 9 to 14 wherein the first neutralising agent used in step (i) is limestone.
- 16. A method according to any one of claims 9 to 15 which includes the step of :
 - transferring solution from the second tank to /a third tank in the series of (i) continuously stirred tank reactors.
- A method according to claim 16 which includes the steps, in the third tank, of:
 - adding air to the solution; (k)
 - heating the solution to an elevated temperature; and (1)
 - (m) selectively precipitating ferric arsenate $\frac{1}{2}$ compounds from the solution with a second calcium-containing neutralising agent.
 - A method according to claim 17 wherein the molar ratio of iron to arsenic of the solution in the third tank is at least 1.
 - A method according to claim 17 or 18 wherein air is added, in step (k), to oxidise ferrous 19. iron of the solution to ferric iron.
- A method according to claim 17, 1^{1}_{8} or 19 wherein step (I) is used to increase the rate of 20. ferric arsenate precipitation and to minimise copper co-precipitation.
- 21. A method according to any one of claims 17 to 20 wherein the elevated temperature in step (I) is above 60°C and below 100°C.
- A method according to any $\stackrel{1}{p}$ ne of claims 17 to 21 wherein the precipitation of ferric 22. arsenate compounds in step m is conducted at atmospheric pressure and at a pH of at east about 1,9.

- A method according to any one of claims 17 to 22 wherein the second neutralising agent WO 01/23628 used in step (m) is limestone.
- A method according to any one of claims 17 to 23 which includes the step of : 24.
 - transferring solution from the third tank to a final/tank in the series of continuously stirred tank reactors.
- A method according to claim 24 which includes the steps, in the final tank, of : 25.
 - adding air to the solution; (o)

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- heating the solution to an elevated temperature; and (p)
- selectively precipitating ferric arsenate compounds from the solution by holding the (p) solution in the final tank.
- 26. A method according to claim 25 wherein the molar ratio of iron to arsenic of the solution in the final tank is at least 1.
- A method according to claim 25 or 26 wherein air is added, in step (o), to oxidise ferrous 27. iron of the solution to ferric iron.
- 28. A method according to claim 25, 26 or 27 wherein step (p) is used to increase the rate of ferric arsenate precipitation and to minimise copper co-precipitation.
 - 29. A method according to any one of claims 25 to 28 wherein the elevated temperature in step (p) is above 60 °C and below 100 °C.
 - A method according to any one $\dot{\phi}_f$ claims 25 to 29 wherein the selective precipitation of ferric arsenate compounds in step (q) is conducted at atmospheric pressure. 30.

- 31. A method according to any one of claims 25 to 30 wherein the solution from the final tank is transferred to a separation unit where separation is undertaken to form a solid phase and a liquid phase.
 - 32. A method according to claim 31 wherein/a portion of the solid phase is recycled to the said first tank.

PATENT COOPERATION TREATY

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The designated Office is hereby notified of its election made: X In the demand filed with the International Preliminary Examining Authority on: 18 April 2001 (18.04.01) In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with the International Bureau on: In a notice effecting later election filed with		
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